

3-Year PhD Position

Food Supply-Chain and Network Modelling

Complexity Science Hub Vienna

€ 32,000 gross/year, part time (30h)



COMPLEXITY
SCIENCE
HUB
VIENNA

The Complexity Science Hub Vienna is a young research institution dedicated to a deeper quantitative and predictive understanding of complex systems for the betterment of society. We provide an exciting, creative, bureaucracy-free environment for open-minded visionaries who want to make a change and are brave enough to step out of mainstream science.

3-YEAR PHD POSITION Food Supply-Chain and Network Modelling

RESEARCH TOPIC

The COVID-19 crisis has demonstrated the fragility of the highly interdependent food supply and distribution networks we all crucially depend on. The propagation of supply chain disruptions along these networks endanger the food supply security of entire regions or countries, eventually affecting people directly. The successful candidate will work on a cutting edge research project that models and visualizes how supply chain disruptions spread along nationwide establishment-level food supply networks. The successful candidate will work closely with an experienced data engineer and experts on supply network modelling to develop a deep understanding of supply chain network. This includes working with data on transaction level supply relations, constructing and analyzing the resulting temporal networks with the newest tools from network science to get a better understanding of the networks' inherent systemic risks.

YOUR PROFILE

We are looking for an excellent young scientist with a Master's degree (or equivalent) with a quantitative focus (e.g. data science, physics, economics, biology, operations research, veterinary medicine, supply chain management, food science). In your Master's thesis, you have successfully shown your quantitative research skills. You have the ability to independently carry out data-intensive research and show good programming (e.g., Python, R, Julia), modelling and quantitative skills. Knowledge of SQL databases, food supply, or animal trade networks is a plus. Proficiency in English (written and spoken) is a prerequisite.

We search for critical thinkers that are open-minded, have a collaborative spirit and feel comfortable within an interdisciplinary environment cutting across network science, supply chain management, physics, and complex systems. We encourage you to apply if you are eager to understand the disruption propagation mechanisms in a complex establishment level multi-layer food supply network, get your hands on real data and understand resilience, systemic risks and cascading processes.

WE OFFER

A fully funded 3-year PhD position in an exciting research environment at the Complexity Science Vienna, close collaboration with colleagues from the Economic Networks Team, access to a network of world-renowned researchers and a great community of talented, young and motivated PhD and Postdoc researchers. The PhD will be supervised in the group of Stefan Thurner. The position is available from April 2022.

APPLICATION

Please send your application to applications@csh.ac.at with the subject line "PhD Application Food Supply-Chain and Network Modelling". Application material includes a CV, a list of publications (if applicable), and a one-page vision letter (What is your vision for scientific research? What would you like to discover in your future scientific life? Why are you interested in the topic?), a copy of your Master's thesis, and any additional material showing your computational skills and creativity. Please also include names and full contact addresses of at least one person that is willing to write a letter of recommendation for you.

CSH is committed to the principle of equal employment opportunity for all applicants. All employment decisions are therefore based on job requirements, qualifications, merit, and organizational needs. We strongly encourage individuals from underrepresented groups to apply.

We process your personal data in accordance with the law (www.csh.ac.at/data-protection/).